

## **CLAIMS**

1. Pressure sensing apparatus comprising:

a pressure responsive member;

a pressure sensor;

a hydraulic connector hydraulically connecting the pressure responsive member with the pressure sensor to produce an indication of sensed pressure; and wherein:

the hydraulic connector comprises a tubular member and a longitudinal insert in the tubular member with hydraulic fluid in the tubular member between the insert and the member, the tubular member, the insert and the hydraulic fluid and the dimensions of the tubular member and the insert being such that during use of the apparatus, the hydraulic fluid pressure transmitted to the pressure sensor is substantially independent of temperature changes.

2. The apparatus according to claim 1, wherein the tubular member is metallic.

3. The apparatus according to claim 1, wherein the insert is in the form of a rod.

4. The apparatus according to claim 1, wherein the volumetric coefficient of thermal expansion of the material of the tubular member is less than that of the hydraulic fluid and greater than that of the material of the insert.

5. The apparatus according to claim 4, wherein the volumetric coefficient of thermal expansion of the material of the tubular member is substantially  $30 \times 10^{-6}/^{\circ}\text{C}$ , that of the material of the insert is substantially  $0.5 \times 10^{-6}/^{\circ}\text{C}$ , that of the hydraulic fluid is substantially  $300 \times 10^{-6}/^{\circ}\text{C}$  and the insert occupies substantially 95% of the internal volume of the tubular member.

6. The apparatus according to claim 1, wherein the pressure responsive member comprises a diaphragm.
7. The apparatus according to claim 1, wherein the pressure sensor comprises an electronic pressure sensing device.